

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **6E9**

Lot-specific information
Olerup SSP® HLA-C*03

Product number:	101.611-12 – including <i>Taq</i> polymerase 101.611-12u – without <i>Taq</i> polymerase
Lot number:	6E9
Expiry date:	2019-07-01
Number of tests:	12
Number of wells per test:	57+1
Storage - pre-aliquoted primers:	dark at -20°C
- PCR Master Mix:	-20°C
- Adhesive PCR seals	RT
- Product Insert	RT

This Product Description is only valid for Lot No. 6E9.

Complete product documentation consists of generic Instructions for Use (IFU), lot specific Product Insert, Worksheet and Certificate.

**CHANGES COMPARED TO THE PREVIOUS OLERUP SSP®
HLA-C*03 LOT (63Y).**

The HLA-C*03 kit is updated for new alleles to enable separation of:

- Confirmed¹ alleles as listed in the IMGT/HLA database
- Polymorphisms in exons outside of the region encoding the peptide binding domain
- Null and Alternatively expressed alleles

Ten wells have been added to HLA-C*03, wells **49** to **58**

¹As described in section Uniquely Identified Alleles.

The HLA-C*03 primer set, specificity and interpretation tables have been updated for the HLA-C alleles described since the previous *Olerup SSP®* HLA-C*03 lot was made (**Lot No. 63Y**). The kit design is based on IMGT/HLA database 3.25.0.

As of lot series V, the Specificity Table is included in the lot-specific Product Insert, and the Interpretation Table is included in the Worksheet.

101.611-12 – including *Taq* polymerase, IFU-01
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The primers of the wells detailed below have been exchanged, modified or added compared to the previous lot.

Well	5'-primer	3'-primer	rationale
2	Added	-	5'-primer added for the C*03:02:15 allele.
13	Added	-	5'-primer added for the C*03:02:15 allele.
16	Added	-	5'-primer added for the C*03:105 allele.
18	Added	-	5'-primer added for the C*03:318N allele.
24	-	Modified	3'-primer modified for improved HLA-specific amplification of the C*03:229N allele.
25	Moved	Moved	Primer pairs moved to well 55 and well 57 for improved HLA-specific amplification.
27	-	Added	3'-primer added for the C*03:323N allele.
35	-	Modified	3'-primer modified for improved HLA-specific amplification of the C*03:229N allele, 3'-primer modified for increased yield of the C*03:82 allele.
38	Moved	Moved	Primer pair moved to well 56 for decreased tendency of primer oligomer formation.
41	Moved	Moved	Primer pair moved to well 49 for improved HLA-specific amplification of the C*03:294 allele.
44	-	Modified	3'-primer modified for improved HLA-specific amplification of the C*03:229N allele.
45	-	Added	5'-primer added for the C*03:213 allele.
48	Added	Added	Negative Control moved to well 58, new primer pairs added for the C*03:57:01-03:57:02 alleles.
49	Added	Added	Primer pair added from well 41 for the C*03:294 allele.
50	New	New	New primer pairs added for the C*03:250 and C*03:318N alleles.
51	New	New	New primer pairs added for the C*03:105 and C*03:303 alleles.
52	New	New	New primer pairs added for the C*03:311 and C*03:323N alleles.
53	New	New	New primer pairs added for the C*03:106 and C*03:312 alleles.
54	New	New	New primer pair added for the C*03:316N allele.
55	Added	Added	Primer pairs added from well 25 for improved HLA-specific amplification.
56	Added	Added	Primer pairs added from well 38 for decreased tendency of primer oligomer formation.
57	Added	Added	Primer pairs added from well 25 for improved HLA-specific amplification.
58	-	-	Negative Control added from well 48.

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Well **58** contains Negative Control primer pairs, that will amplify more than 95% of the *Olerup SSP*® HLA Class I, DRB, DQB1, DPB1 and DQA1 amplicons as well as all the amplicons generated by the control primer pairs matching the human growth hormone gene.

HLA-specific PCR product sizes range from 75 to 200 base pairs.
The PCR product generated by the positive control primer pair is 430 base pairs.

Length of PCR product	105	200	105	80	75	80	85
5'-primer¹	164	340	440	45	45	43	36
	5'-CAC ^{3'}	5'-Agg ^{3'}	5'-TTA ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-Tgg ^{3'}	5'-TAC ^{3'}
							36
							5'-TAT ^{3'}
3'-primer²	231	2nd I	507	59	58	57	47
	5'-TgC ^{3'}	5'-AAA ^{3'}	5'-TTg ^{3'}	5'-CTC ^{3'}	5'-ggC ^{3'}	5'-CTC ^{3'}	5'-ACA ^{3'}
							48
							5'-gCA ^{3'}
							48
							5'-gCC ^{3'}
							52
							5'-TgT ^{3'}
A*	+	+	+				
B*	+	+	+				
C*	+	+	+				
DRB1				+	+		
DRB3				+	+		
DRB5				+			
DQB1					+		
DPB1						+	
DQA1							+

¹The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon, matching the specificity-determining 3'-end of the primer is given. Nucleotide and codon numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

²The nucleotide position for HLA class I genes and the codon for HLA class II genes, in the 2nd or 3rd exon or the 2nd intron, matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide and codon numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

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Lot-specific information

PRODUCT DESCRIPTION

HLA-C*03 SSP subtyping

CONTENT

The primer set contains 5'- and 3'-primers for identifying the HLA-C*03:02 to C*03:324 alleles.

PLATE LAYOUT

Each test consists of 58 PCR reactions in a 64 well cut PCR plate. Wells 59 to 64 are empty.

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	NC	empty	empty	empty	empty	empty	empty

The 64 well cut PCR plate is marked with 'HLA-C*03' in silver/gray ink.

Well No. 1 is marked with the Lot Number '6E9'.

Wells 1 to 57 – HLA-C*03 high resolution primers.

Well 58 – Negative Control (NC).

A faint row of numbers is seen between wells 1 and 2 or wells 7 and 8 of the PCR trays. These stem from the manufacture of the trays, and should be disregarded. The PCR plates are heat-sealed with a PCR-compatible foil.

INTERPRETATION

Due to the sharing of sequence motifs between HLA-C alleles, non-HLA-C*03 alleles will be amplified by primer mixes 1 to 3, 5, 7 to 16, 19, 20, 22, 23, 25 to 41, 45 to 47, 49, 50, 55 and 57. In addition, a few HLA-A and HLA-B alleles will be amplified by primer mixes 1, 2, 5 to 8, 12 to 14, 16, 18, 20, 25 to 29, 33, 35, 39, 40, 42, 43 and 46.

For further details see Specificity Table.

UNIQUELY IDENTIFIED ALLELES

All the HLA-C*03 alleles, i.e. **C*03:02 to C*03:324**, recognized by the HLA Nomenclature Committee in July 2016^{1,2} will be amplified by the primers in the HLA-C*03 subtyping kit³.

The HLA-C*03 kit enables separation of the confirmed HLA- C*03 alleles as listed in the IMGT/HLA database. An HLA allele is listed as confirmed by IMGT/HLA if it has been sequenced by more than a single laboratory or from multiple sources. Current allele confirmation status for HLA- C*03 alleles is listed below.

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The HLA-C*03 kit also enables identification of polymorphisms in exons outside of the region encoding the peptide binding domain and of null and alternatively expressed alleles.

The following HLA-C*03 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

Alleles	Primer mix	Alleles	Primer mix
C*03:04:19, 03:265N	12	C*03:49, 03:103	23
C*03:06:01-03:06:02, 03:287	6	C*03:50, 03:122	36
C*03:24, 03:236	19	C*03:56, 03:85	35
C*03:28, 03:90	23	C*03:68, 03:205	41
C*03:37:01-03:37:02, 03:208N	27	C*03:70, 03:78, 03:179	42
C*03:44, 03:123, 03:209	31	C*03:72, 03:219	36

The HLA-C*03 subtyping kit cannot distinguish the following silent mutations: the C*03:02:01-03:02:09 and 03:02:11-03:02:15, the C*03:03:01:01-03:03:11, 03:03:13-03:03:14, 03:03:16-03:03:20, 03:03:22-03:03:28 and 03:03:30-03:03:32, the C*03:03:12, 03:03:15 and 03:03:29, the C*03:04:01:01-03:04:18, 03:04:20-03:04:24, 03:04:27-03:04:51, 03:91:02 and 03:186:01-03:186:02, the C*03:06:01-03:06:02, the C*03:13:01-03:13:02, the 03:37:01-03:37:02, the 03:40:01 and 03:40:03-03:40:04, the C*03:41:01-03:41:02, the C*03:87:01-03:87:02, the 03:116:01-03:116:02 or the 03:184:01-03:184:02 alleles.

¹HLA-C alleles listed on the IMGT/HLA web page 2016-July-14, release 3.25.0, www.ebi.ac.uk/imgt/hla.

²Alleles that have been deleted from or renamed in the official WHO HLA Nomenclature up to and including the last IMGT/HLA database release can be retrieved from web page <http://hla.alleles.org/alleles/deleted.html>.

³The C*03:99 and C*05:107 alleles give rise to identical amplification patterns with the HLA-C*03 subtyping kit. These alleles can be distinguished by the HLA-C low resolution kit and/or the HLA-C*05 subtyping kits.

The C*03:135, C*03:154, 03:260, 03:286 and C*15:43 give rise to identical amplification patterns with the HLA-C*03 subtyping kit. These alleles can be distinguished by the HLA-C low resolution kit and/or the HLA-C*15 subtyping kits.

RESOLUTION IN HOMO- AND HETEROZYGOTES

Results file with resolution in HLA-C*03 homo- and heterozygotes is available upon request.

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Allele Confirmation Status

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*03:02:01	Confirmed	C*03:04:01:01	Confirmed	C*03:04:50	Unconfirmed	C*03:43:01	Confirmed
C*03:02:02:01	Confirmed	C*03:04:01:02	Confirmed	C*03:04:51	Unconfirmed	C*03:43:02	Unconfirmed
C*03:02:02:02	Unconfirmed	C*03:04:02	Confirmed	C*03:05	Confirmed	C*03:44	Confirmed
C*03:02:02:03	Unconfirmed	C*03:04:03	Unconfirmed	C*03:06:01	Confirmed	C*03:45	Unconfirmed
C*03:02:03	Unconfirmed	C*03:04:04	Confirmed	C*03:06:02	Unconfirmed	C*03:46	Confirmed
C*03:02:04	Unconfirmed	C*03:04:05	Unconfirmed	C*03:07	Confirmed	C*03:47	Confirmed
C*03:02:05	Unconfirmed	C*03:04:06	Unconfirmed	C*03:08	Confirmed	C*03:48	Unconfirmed
C*03:02:06	Confirmed	C*03:04:07	Unconfirmed	C*03:09	Confirmed	C*03:49	Confirmed
C*03:02:07	Unconfirmed	C*03:04:08	Confirmed	C*03:10	Confirmed	C*03:50	Unconfirmed
C*03:02:08	Unconfirmed	C*03:04:09	Confirmed	C*03:11:01	Unconfirmed	C*03:51	Confirmed
C*03:02:09	Confirmed	C*03:04:10	Confirmed	C*03:11:02	Confirmed	C*03:52	Unconfirmed
C*03:02:10	Confirmed	C*03:04:11	Confirmed	C*03:13:01	Unconfirmed	C*03:53	Confirmed
C*03:02:11	Unconfirmed	C*03:04:12	Unconfirmed	C*03:13:02	Unconfirmed	C*03:54	Confirmed
C*03:02:12	Unconfirmed	C*03:04:13	Confirmed	C*03:14	Confirmed	C*03:55	Confirmed
C*03:02:13	Unconfirmed	C*03:04:14	Unconfirmed	C*03:15	Unconfirmed	C*03:56	Confirmed
C*03:02:14	Unconfirmed	C*03:04:15	Confirmed	C*03:16	Confirmed	C*03:57:01	Unconfirmed
C*03:02:15	Unconfirmed	C*03:04:16	Confirmed	C*03:17	Confirmed	C*03:57:02	Unconfirmed
C*03:03:01:01	Confirmed	C*03:04:17	Confirmed	C*03:18:01	Unconfirmed	C*03:58	Unconfirmed
C*03:03:01:02	Unconfirmed	C*03:04:18	Confirmed	C*03:18:02	Unconfirmed	C*03:59	Confirmed
C*03:03:02	Confirmed	C*03:04:19	Confirmed	C*03:19	Confirmed	C*03:60	Unconfirmed
C*03:03:03	Unconfirmed	C*03:04:20	Unconfirmed	C*03:20N	Unconfirmed	C*03:61	Unconfirmed
C*03:03:04	Confirmed	C*03:04:21	Confirmed	C*03:21	Confirmed	C*03:62	Confirmed
C*03:03:05	Confirmed	C*03:04:22	Confirmed	C*03:22Q	Unconfirmed	C*03:63	Confirmed
C*03:03:06	Unconfirmed	C*03:04:23	Confirmed	C*03:23	Confirmed	C*03:64:01	Confirmed
C*03:03:07	Confirmed	C*03:04:24	Confirmed	C*03:24	Unconfirmed	C*03:64:02	Unconfirmed
C*03:03:08	Confirmed	C*03:04:25	Unconfirmed	C*03:25	Confirmed	C*03:65	Confirmed
C*03:03:09	Unconfirmed	C*03:04:26	Unconfirmed	C*03:26	Confirmed	C*03:66	Unconfirmed
C*03:03:10	Confirmed	C*03:04:27	Unconfirmed	C*03:27	Confirmed	C*03:67	Unconfirmed
C*03:03:11	Unconfirmed	C*03:04:28	Confirmed	C*03:28	Confirmed	C*03:68	Unconfirmed
C*03:03:12	Confirmed	C*03:04:29	Unconfirmed	C*03:29	Confirmed	C*03:69	Confirmed
C*03:03:13	Unconfirmed	C*03:04:30	Confirmed	C*03:30	Confirmed	C*03:70	Confirmed
C*03:03:14	Unconfirmed	C*03:04:31	Unconfirmed	C*03:31	Unconfirmed	C*03:71	Unconfirmed
C*03:03:15	Unconfirmed	C*03:04:32	Unconfirmed	C*03:32	Confirmed	C*03:72	Unconfirmed
C*03:03:16	Confirmed	C*03:04:33	Unconfirmed	C*03:33	Unconfirmed	C*03:73	Unconfirmed
C*03:03:17	Unconfirmed	C*03:04:34	Unconfirmed	C*03:34	Confirmed	C*03:74	Confirmed
C*03:03:18	Unconfirmed	C*03:04:35	Unconfirmed	C*03:35:01	Confirmed	C*03:75	Confirmed
C*03:03:19	Confirmed	C*03:04:36	Unconfirmed	C*03:35:02	Confirmed	C*03:76	Confirmed
C*03:03:20	Unconfirmed	C*03:04:37	Unconfirmed	C*03:36	Confirmed	C*03:77	Unconfirmed
C*03:03:21	Unconfirmed	C*03:04:38	Unconfirmed	C*03:37:01	Confirmed	C*03:78	Confirmed
C*03:03:22	Confirmed	C*03:04:39	Confirmed	C*03:37:02	Confirmed	C*03:79	Confirmed
C*03:03:23	Unconfirmed	C*03:04:40	Unconfirmed	C*03:38:01	Confirmed	C*03:80	Unconfirmed
C*03:03:24	Unconfirmed	C*03:04:41	Confirmed	C*03:38:02	Confirmed	C*03:81	Confirmed
C*03:03:25	Unconfirmed	C*03:04:42	Unconfirmed	C*03:39	Unconfirmed	C*03:82	Confirmed
C*03:03:26	Unconfirmed	C*03:04:43	Unconfirmed	C*03:40:01	Confirmed	C*03:83	Unconfirmed
C*03:03:27	Confirmed	C*03:04:44	Unconfirmed	C*03:40:02	Unconfirmed	C*03:84	Unconfirmed
C*03:03:28	Unconfirmed	C*03:04:45	Unconfirmed	C*03:40:03	Unconfirmed	C*03:85	Confirmed
C*03:03:29	Confirmed	C*03:04:46	Unconfirmed	C*03:40:04	Unconfirmed	C*03:86	Confirmed
C*03:03:30	Unconfirmed	C*03:04:47	Unconfirmed	C*03:41:01	Confirmed	C*03:87:01	Confirmed
C*03:03:31	Unconfirmed	C*03:04:48	Unconfirmed	C*03:41:02	Confirmed	C*03:87:02	Confirmed
C*03:03:32	Unconfirmed	C*03:04:49	Unconfirmed	C*03:42	Confirmed	C*03:88	Confirmed

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Lot-specific information

Allele	Status ¹	Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*03:89	Unconfirmed	C*03:136	Confirmed	C*03:185	Unconfirmed	C*03:233	Unconfirmed
C*03:90	Confirmed	C*03:137	Confirmed	C*03:186:01	Unconfirmed	C*03:234	Unconfirmed
C*03:91:01	Unconfirmed	C*03:138	Unconfirmed	C*03:186:02	Unconfirmed	C*03:235	Unconfirmed
C*03:91:02	Unconfirmed	C*03:139	Confirmed	C*03:187	Unconfirmed	C*03:236	Unconfirmed
C*03:92	Unconfirmed	C*03:140	Confirmed	C*03:188	Unconfirmed	C*03:237	Unconfirmed
C*03:93	Unconfirmed	C*03:141	Unconfirmed	C*03:189N	Unconfirmed	C*03:238	Unconfirmed
C*03:94	Unconfirmed	C*03:142	Unconfirmed	C*03:190	Unconfirmed	C*03:239	Unconfirmed
C*03:95	Confirmed	C*03:143	Unconfirmed	C*03:191	Unconfirmed	C*03:240	Unconfirmed
C*03:96	Confirmed	C*03:144	Unconfirmed	C*03:192	Confirmed	C*03:241	Unconfirmed
C*03:97	Unconfirmed	C*03:145	Confirmed	C*03:193	Unconfirmed	C*03:242	Unconfirmed
C*03:98	Unconfirmed	C*03:146	Unconfirmed	C*03:194	Unconfirmed	C*03:243	Confirmed
C*03:99	Unconfirmed	C*03:147	Confirmed	C*03:195	Unconfirmed	C*03:244Q	Unconfirmed
C*03:100	Confirmed	C*03:148	Unconfirmed	C*03:196	Unconfirmed	C*03:245	Unconfirmed
C*03:101	Confirmed	C*03:149	Unconfirmed	C*03:197	Unconfirmed	C*03:246	Unconfirmed
C*03:102	Unconfirmed	C*03:150	Unconfirmed	C*03:198	Confirmed	C*03:247	Unconfirmed
C*03:103	Unconfirmed	C*03:151	Confirmed	C*03:199	Unconfirmed	C*03:248	Unconfirmed
C*03:104	Unconfirmed	C*03:152	Unconfirmed	C*03:200	Unconfirmed	C*03:249	Unconfirmed
C*03:105	Unconfirmed	C*03:153	Confirmed	C*03:201N	Unconfirmed	C*03:250	Confirmed
C*03:106	Unconfirmed	C*03:154	Unconfirmed	C*03:202	Unconfirmed	C*03:251	Confirmed
C*03:107	Unconfirmed	C*03:155	Confirmed	C*03:203	Unconfirmed	C*03:252	Unconfirmed
C*03:108	Unconfirmed	C*03:156	Unconfirmed	C*03:204	Unconfirmed	C*03:253	Unconfirmed
C*03:109	Confirmed	C*03:157	Unconfirmed	C*03:205	Unconfirmed	C*03:254	Unconfirmed
C*03:110	Unconfirmed	C*03:158	Unconfirmed	C*03:206	Confirmed	C*03:255	Unconfirmed
C*03:111	Unconfirmed	C*03:159	Unconfirmed	C*03:207	Unconfirmed	C*03:256	Unconfirmed
C*03:112	Unconfirmed	C*03:160	Unconfirmed	C*03:208N	Unconfirmed	C*03:257	Unconfirmed
C*03:113:01	Confirmed	C*03:161	Unconfirmed	C*03:209	Confirmed	C*03:258	Confirmed
C*03:113:02	Unconfirmed	C*03:162	Unconfirmed	C*03:210	Unconfirmed	C*03:259	Unconfirmed
C*03:114	Unconfirmed	C*03:163	Unconfirmed	C*03:211:01	Confirmed	C*03:260	Unconfirmed
C*03:115	Confirmed	C*03:164	Unconfirmed	C*03:211:02	Unconfirmed	C*03:261	Unconfirmed
C*03:116:01	Confirmed	C*03:165	Confirmed	C*03:212	Confirmed	C*03:262	Unconfirmed
C*03:116:02	Unconfirmed	C*03:166	Unconfirmed	C*03:213	Unconfirmed	C*03:263:01	Unconfirmed
C*03:117	Unconfirmed	C*03:167	Confirmed	C*03:214	Confirmed	C*03:263:02	Unconfirmed
C*03:118	Unconfirmed	C*03:168	Unconfirmed	C*03:215	Unconfirmed	C*03:264	Unconfirmed
C*03:119	Unconfirmed	C*03:169Q	Unconfirmed	C*03:216	Unconfirmed	C*03:265N	Unconfirmed
C*03:120	Confirmed	C*03:170	Unconfirmed	C*03:217	Unconfirmed	C*03:266	Unconfirmed
C*03:121N	Unconfirmed	C*03:171	Unconfirmed	C*03:218	Unconfirmed	C*03:267	Unconfirmed
C*03:122	Confirmed	C*03:172	Unconfirmed	C*03:219	Unconfirmed	C*03:268	Unconfirmed
C*03:123	Confirmed	C*03:173	Unconfirmed	C*03:220	Unconfirmed	C*03:269	Unconfirmed
C*03:124	Unconfirmed	C*03:174	Confirmed	C*03:221	Confirmed	C*03:270	Unconfirmed
C*03:125	Unconfirmed	C*03:175	Unconfirmed	C*03:222	Unconfirmed	C*03:271	Unconfirmed
C*03:126	Confirmed	C*03:176	Confirmed	C*03:223	Unconfirmed	C*03:272	Confirmed
C*03:127	Unconfirmed	C*03:177	Unconfirmed	C*03:224N	Unconfirmed	C*03:273	Unconfirmed
C*03:128	Unconfirmed	C*03:178	Unconfirmed	C*03:225	Unconfirmed	C*03:274	Unconfirmed
C*03:129	Unconfirmed	C*03:179	Unconfirmed	C*03:226	Unconfirmed	C*03:275	Unconfirmed
C*03:130	Unconfirmed	C*03:180	Unconfirmed	C*03:227	Unconfirmed	C*03:276	Unconfirmed
C*03:131	Unconfirmed	C*03:181	Unconfirmed	C*03:228	Unconfirmed	C*03:277N	Unconfirmed
C*03:132	Unconfirmed	C*03:182	Unconfirmed	C*03:229N	Unconfirmed	C*03:278	Unconfirmed
C*03:133	Unconfirmed	C*03:183	Unconfirmed	C*03:230	Unconfirmed	C*03:279	Unconfirmed
C*03:134	Unconfirmed	C*03:184:01	Confirmed	C*03:231	Unconfirmed	C*03:280	Unconfirmed
C*03:135	Unconfirmed	C*03:184:02	Unconfirmed	C*03:232	Unconfirmed	C*03:281	Unconfirmed

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Allele	Status ¹	Allele	Status ¹	Allele	Status ¹
C*03:282	Unconfirmed	C*03:302	Unconfirmed	C*03:322	Unconfirmed
C*03:283	Unconfirmed	C*03:303	Unconfirmed	C*03:323N	Unconfirmed
C*03:284	Unconfirmed	C*03:304	Unconfirmed	C*03:324	Unconfirmed
C*03:285	Unconfirmed	C*03:305	Unconfirmed		
C*03:286	Unconfirmed	C*03:306	Unconfirmed		
C*03:287	Unconfirmed	C*03:307	Unconfirmed		
C*03:288	Unconfirmed	C*03:308	Unconfirmed		
C*03:289	Unconfirmed	C*03:309	Unconfirmed		
C*03:290	Unconfirmed	C*03:310	Unconfirmed		
C*03:291	Unconfirmed	C*03:311	Confirmed		
C*03:292	Unconfirmed	C*03:312	Unconfirmed		
C*03:293	Unconfirmed	C*03:313	Unconfirmed		
C*03:294	Unconfirmed	C*03:314	Unconfirmed		
C*03:295	Unconfirmed	C*03:315	Unconfirmed		
C*03:296	Unconfirmed	C*03:316N	Unconfirmed		
C*03:297	Unconfirmed	C*03:317	Unconfirmed		
C*03:298	Unconfirmed	C*03:318N	Unconfirmed		
C*03:299	Unconfirmed	C*03:319	Unconfirmed		
C*03:300	Unconfirmed	C*03:320	Unconfirmed		
C*03:301	Unconfirmed	C*03:321	Unconfirmed		

¹Allele status “confirmed” or “unconfirmed” as listed on the IMGT/HLA web page 2016-July-14, release 3.25.0, www.ebi.ac.uk/imgt/hla.

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information
SPECIFICITY TABLE

HLA-C*03 SSP subtyping

Specificities and sizes of the PCR products of the 57+1 primer mixes used for HLA-C*03 SSP subtyping

Primer Mix	Size of spec. PCR product ¹	Size of control band ²	Amplified HLA-C*03 alleles ³	Other amplified HLA Class I alleles ⁴
1	280 bp	800 bp	*03:02:01-03:02:09, 03:02:11-03:02:15, 03:04:01:01-03:04:25, 03:04:27-03:10, 03:14-03:17, 03:19, 03:23-03:29, 03:32-03:38:02, 03:40:01-03:42, 03:44-03:48, 03:51, 03:54, 03:57:01-03:57:02, 03:60, 03:63-03:64:01, 03:65, 03:70-03:74, 03:77-03:78, 03:80, 03:82, 03:84, 03:87:01-03:87:02, 03:89-03:95, 03:98, 03:100-03:101, 03:104-03:111, 03:113:01-03:115, 03:117-03:118, 03:121N, 03:123, 03:125, 03:128-03:131, 03:134-03:136, 03:138-03:140, 03:143, 03:145-03:149, 03:153-03:155, 03:157, 03:159, 03:162-03:164, 03:169Q, 03:172-03:174, 03:178-03:181, 03:183-03:184:02, 03:186:01-03:186:02, 03:190-03:191, 03:193-03:194, 03:197-03:201N, 03:208N-03:213, 03:215-03:216, 03:218-03:219, 03:221-03:222, 03:224N-03:226, 03:232-03:236, 03:238-03:240, 03:244Q-03:250, 03:252, 03:255-03:261, 03:263, 03:265N-03:266, 03:269-03:270, 03:277N, 03:278 ^w , 03:279-03:283, 03:286-03:287, 03:292-03:294, 03:296-03:303, 03:305-03:306, 03:309-03:311, 03:313-03:315, 03:317-03:318N, 03:322-03:323N	*02:02:01-02:02:03, 02:02:05-02:02:29, 02:03, 02:04 ^w , 02:05:01-02:13, 02:14:01 ^w , 02:15-02:25Q, 02:26:02-02:32, 02:34-02:40:02, 02:42-02:86, 02:88-02:106, 02:108-02:120, 04:03:01-04:03:03, 04:06, 04:16, 04:80, 04:107, 04:147, 04:160, 04:171, 05:58:01, 05:58:03, 06:03:01, 06:132:01-06:132:02, 07:02:10 ^w , 07:96:01-07:96:02, 07:127 ^w , 07:314:02, 12:03:23, 15:02:01:01-15:02:20, 15:02:22-15:02:24, 15:02:26-15:05:08, 15:05:10-15:09, 15:10:02-15:11, 15:13, 15:15-15:19, 15:21-15:22, 15:24-15:35, 15:37-15:60, 15:62, 15:64-15:106, 15:108-15:129, 16:34, 16:70, B*40:164, B*58:74
2	210 bp	1070 bp	*03:02:01-03:02:15, 03:14-03:15, 03:33, 03:36, 03:40:01-03:40:04, 03:42-03:43:02, 03:60, 03:71, 03:84, 03:89, 03:95, 03:108, 03:110, 03:119, 03:121N, 03:132, 03:139, 03:146, 03:169Q, 03:175, 03:190, 03:194, 03:197-03:201N, 03:216, 03:221-03:222, 03:224N-03:226, 03:238, 03:240, 03:245, 03:248, 03:258, 03:264, 03:271, 03:279, 03:298-03:301, 03:315	*07:133, 07:242, 07:330:01, B*15:96
3	280 bp	800 bp	*03:03:01:01-03:03:20, 03:03:22-03:03:32, 03:11:01-03:11:02, 03:13:01-03:13:02, 03:18:02,	*15:12

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **6E9**

Lot-specific information

			03:20N-03:22Q, 03:30-03:31, 03:43:01-03:43:02, 03:49-03:50, 03:52-03:53, 03:55-03:56, 03:58- 03:59, 03:61-03:62, 03:66, 03:67 ^w , 03:68-03:69, 03:75-03:76, 03:79, 03:81, 03:83, 03:85-03:86, 03:88, 03:96-03:97, 03:102-03:103, 03:112, 03:116:01-03:116:02, 03:119-03:120, 03:122, 03:124, 03:126-03:127, 03:132-03:133, 03:141-03:142, 03:150-03:152, 03:158, 03:160- 03:161, 03:165, 03:167-03:168, 03:171, 03:175-03:177, 03:185, 03:187-03:189N, 03:192, 03:196, 03:202-03:207, 03:214, 03:217, 03:220, 03:223, 03:227-03:230, 03:237, 03:241-03:243, 03:251, 03:253-03:254, 03:262, 03:267- 03:268, 03:271-03:276, 03:284- 03:285, 03:288-03:291, 03:295 ^w , 03:304, 03:307-03:308, 03:312, 03:316N, 03:319-03:321, 03:324	
4	275 bp	1070 bp	*03:03:01:01-03:04:51, 03:06:01- 03:11:02, 03:14, 03:18:01-03:24, 03:26, 03:28-03:32, 03:34, 03:37:01- 03:40:04, 03:42-03:57:02, 03:59, 03:61-03:70, 03:72-03:83, 03:85, 03:87:01-03:88, 03:90-03:93, 03:96, 03:98, 03:100-03:107, 03:109, 03:111-03:112, 03:114-03:120, 03:122-03:131, 03:133-03:134, 03:136-03:138, 03:140-03:145, 03:147-03:150, 03:152-03:153, 03:155-03:164, 03:166, 03:168, 03:170-03:176, 03:179-03:189N, 03:191-03:193, 03:195-03:196, 03:202-03:215, 03:217-03:220, 03:223, 03:227-03:237, 03:239- 03:244Q, 03:246-03:247, 03:250, 03:252-03:257, 03:259, 03:261, 03:262 [?] , 03:263, 03:265N-03:266, 03:268-03:270, 03:272-03:285, 03:287-03:291, 03:294-03:295, 03:297, 03:303-03:314, 03:316N- 03:324	
5	275 bp	1070 bp	*03:05, 03:13:01-03:13:02, 03:17, 03:25, 03:27, 03:35, 03:71, 03:167, 03:178, 03:198, 03:249, 03:267, 03:271, 03:292, 03:296, 03:302	*01:65, 04:212, 05:86, 07:133, 07:242, 07:330:01, B*15:96
6⁵	90 bp 215 bp	800 bp	*03:21, 03:142, 03:287 *03:06:01-03:06:02	B*15:96
7^{5,6}	110 bp	1070 bp	*03:08, 03:29, 03:31, 03:246	*01:118, 06:44, 07:01:01:01- 07:01:24, 07:01:26-07:01:56, 07:06-07:07, 07:09, 07:16, 07:18-07:20, 07:22, 07:24, 07:26:01-07:26:02, 07:28, 07:30, 07:35-07:36, 07:40, 07:44,

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

		<p>07:52-07:53, 07:55N, 07:57-07:60, 07:65, 07:70-07:71, 07:73, 07:77-07:78:02, 07:81-07:83, 07:86, 07:89, 07:91-07:96:02, 07:98N, 07:103-07:104N, 07:106, 07:108:01-07:113, 07:115-07:116, 07:118-07:120, 07:122, 07:124, 07:128-07:129, 07:131:01-07:132, 07:134, 07:140-07:141:02, 07:148, 07:150Q-07:151, 07:153, 07:162, 07:164N-07:166, 07:170, 07:173, 07:176, 07:179-07:180, 07:182, 07:188-07:191N, 07:196-07:197, 07:200-07:201, 07:203-07:207, 07:210, 07:212, 07:214-07:215, 07:219, 07:222-07:224, 07:227N-07:228, 07:230-07:231, 07:235Q-07:237, 07:246:01-07:250, 07:253-07:257:04, 07:263, 07:266-07:269, 07:276-07:282, 07:292-07:293, 07:296-07:301, 07:303-07:304, 07:310-07:311, 07:313, 07:317, 07:330:01-07:332, 07:337, 07:343, 07:353, 07:362, 07:366, 07:369-07:371, 07:377, 07:385-07:387, 07:404, 07:407-07:408, 07:410, 07:412, 07:417, 07:419, 07:421-07:422, 07:424, 07:427, 07:430-07:431, 07:435, 07:437N, 07:440-07:444, 07:448, 07:450, 07:453-07:455, 07:458, 07:460-07:463, 07:468-07:471, 07:475-07:476N, 07:479, 07:481, 07:488, 07:490-07:492, 07:498-07:499, 07:502, 07:506, 07:508, 07:512, 07:514-07:515, 07:517, 07:521-07:522, 07:526-07:527, 14:73, 15:02:10, 15:02:17, 15:99, 18:05, B*07:259 *01:51, 06:53:01, 07:56:01, 07:60, 07:79, 07:109, 14:46:02, 17:26, B*07:93, B*08:39, B*35:101:02, B*35:195, B*35:211, B*38:27, B*51:76, B*54:34</p>
185 bp	<p>*03:03:01:01-03:03:25, 03:03:27-03:03:32, 03:11:01-03:11:02, 03:13:01-03:13:02, 03:18:01-03:18:02, 03:20N-03:22Q, 03:30-03:31, 03:39, 03:43:01-03:43:02, 03:49-03:50, 03:52-03:53, 03:55-03:56, 03:58-03:59, 03:61-03:62, 03:66-03:69, 03:75-03:76, 03:79, 03:81, 03:83, 03:85-03:86, 03:88, 03:96-03:97, 03:102-03:103, 03:112, 03:116:01-03:116:02, 03:119-03:120, 03:122, 03:124, 03:126-03:127, 03:132-03:133, 03:141-03:142, 03:144, 03:150-03:152, 03:158,</p>	

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

Lot No.: 6E9		Lot-specific information	
			03:160-03:161, 03:165, 03:167-03:168, 03:171, 03:175-03:177, 03:182, 03:185, 03:187-03:189N, 03:192, 03:195-03:196, 03:202-03:207, 03:214, 03:217, 03:220, 03:223, 03:227-03:231, 03:237, 03:241-03:243, 03:251, 03:253-03:254, 03:262, 03:267-03:268, 03:271-03:276, 03:284-03:285, 03:288-03:291, 03:295, 03:304, 03:307-03:308, 03:312, 03:316N, 03:319-03:321, 03:324
8	255 bp	1070 bp	*03:09, 03:22Q, 03:42, 03:71, 03:89, 03:116:01-03:116:02, 03:119, 03:139, 03:169Q, 03:199, 03:240, 03:249, 03:267, 03:292, 03:300 *04:212, 05:86, 07:133, 07:242, 07:330:01, B*56:37
9	240 bp	1070 bp	*03:07, 03:15, 03:45, 03:130, 03:140, 03:163, 03:243, 03:268, 03:297 *02:02:01-02:02:03, 02:02:05-02:02:11, 02:02:13-02:02:29, 02:03, 02:04 ^w , 02:05:01-02:11, 02:13, 02:14:01 ^w , 02:15-02:25Q, 02:26:02-02:26:03, 02:28-02:40:02, 02:42-02:86, 02:88-02:106, 02:108-02:114, 02:116-02:120, 04:03:01-04:03:03, 04:06, 04:16, 04:80, 04:107, 04:147, 04:160, 04:171, 05:58:01, 05:58:03, 06:03:01, 06:132:01-06:132:02, 15:02:01:01-15:02:20, 15:02:22-15:02:24, 15:02:26-15:05:08, 15:05:10, 15:06:01-15:06:03, 15:08-15:09, 15:10:02-15:13, 15:15-15:19, 15:22, 15:24, 15:26-15:35, 15:37-15:42, 15:44:01-15:60, 15:62, 15:64-15:106, 15:108-15:115N, 15:117-15:129, 16:70
10	245 bp	800 bp	*03:07, 03:10, 03:15, 03:29, 03:45, 03:115, 03:163, 03:268, 03:297 *02:02:01 ^w , 02:02:02:01-02:02:03, 02:02:05-02:02:29, 02:03, 02:04 ^w , 02:05:01-02:13, 02:14:01 ^w , 02:15-02:25Q, 02:26:02-02:26:03, 02:28-02:40:02, 02:42-02:64, 02:66-02:86, 02:88-02:106, 02:108-02:114, 02:116-02:120, 04:03:01-04:03:03, 04:06, 04:16, 04:80, 04:107, 04:147, 04:160, 04:171, 05:58:01, 05:58:03, 06:03:01, 06:132:01-06:132:02, 15:02:01:01-15:02:20, 15:02:22-15:02:24, 15:02:26-15:05:08, 15:05:10-15:06:03, 15:08-15:09, 15:10:02-15:13, 15:15-15:19, 15:21-15:22, 15:24, 15:26-15:35, 15:37-15:42,

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

11	145 bp 230 bp 415 bp	1070 bp	*03:87:01-03:87:02 *03:126 *03:08, 03:29, 03:31, 03:246	15:44:01-15:60, 15:62, 15:64-15:84Q, 15:86-15:106, 15:108-15:129, 16:70 *05:86 *01:118, 04:112, 04:169, 05:36, 06:44, 12:08, 12:81, 14:73, 16:64, 16:70, 16:87
12⁵	110 bp 140 bp 260 bp 305 bp	1070 bp	*03:265N *03:214 *03:03:12, 03:03:15, 03:11:01, 03:18:01, 03:39, 03:308 *03:03:29, 03:04:19, 03:113:01	B*44:198N *01:51, 05:55, 06:53:01, 07:56:01, 07:60, 07:79, 07:109, 12:58, 15:12, 17:26 *07:10, 07:43, 07:184, 07:196, 07:367, B*35:01:38, B*35:03:15, B*35:08:04, B*35:15:02, B*37:04:02, B*57:01:18, B*58:01:17 *07:104N, 12:46N
13⁵	590 bp 80 bp 140 bp	1070 bp	*03:02:01-03:02:15, 03:15-03:16, 03:33, 03:36, 03:40:01, 03:40:03-03:40:04, 03:42-03:43:01, 03:60, 03:71, 03:84, 03:89, 03:95, 03:108, 03:110, 03:121N, 03:132, 03:139, 03:146, 03:169Q, 03:175, 03:194, 03:197-03:201N, 03:216, 03:221-03:222, 03:224N-03:226, 03:238, 03:240, 03:245, 03:248, 03:258, 03:264, 03:271, 03:279, 03:298-03:301, 03:315 *03:17, 03:71, 03:249, 03:271, 03:302	*01:97, 04:54, 06:02:08, 07:02:32, 07:242, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03-14:16, 14:18-14:24:01, 14:25, 14:27-14:53, 14:56-14:74, 15:77, 16:01:06, B*15:78:03 *01:97, 04:37, 04:230, 06:02:08, 06:34:02, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03-14:07N, 14:10-14:16, 14:18-14:27, 14:29-14:53, 14:55-14:74, 16:01:06
14⁵	70 bp	1070 bp	*03:02:10, 03:03:21, 03:04:26	*02:26:01, 05:58:02, 06:70:01, 07:20, 07:390, 08:105, 12:140, 15:02:25, 15:23, B*15:315, B*44:85, B*55:30 B*56:37^w
15⁷	210 bp 135 bp	1070 bp	*03:19, 03:102, 03:307 *03:02:01-03:02:09, 03:02:11-03:03:20, 03:03:22-03:04:24, 03:04:27-03:11:02, 03:13:01-03:17, 03:18:02-03:38:02, 03:40:01-03:64:01, 03:65-03:66, 03:67 ^w , 03:68-03:98, 03:100-03:117, 03:119-03:136, 03:138-03:143, 03:146-03:155, 03:157-03:165, 03:167-03:169Q, 03:171, 03:173-03:181, 03:183-03:194, 03:196-03:230, 03:232-03:247, 03:249-03:263, 03:265N-03:277N, 03:278 ^w , 03:279-03:294, 03:295 ^w , 03:296-03:323N	*02:02:13, 02:02:29, 06:03:01 ^w , 06:132:01-06:132:02, 07:96:01-07:96:02, 07:314:02, 15:02:10, 15:02:17, 15:43
16⁵	120 bp 150 bp	1070 bp	*03:105 *03:07, 03:10, 03:15, 03:29, 03:45, 03:163, 03:226, 03:268, 03:297	*01:14, 02:02:13, 02:02:29, 04:01:23, 05:01:12, 05:29:02,

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

				06:02:01:01-06:02:01:03, 06:02:03-06:04:02, 06:06-06:10, 06:12-06:76:01, 06:77-06:81, 06:83-06:146, 06:148-06:187, 07:07, 07:09, 07:76:01-07:76:02, 07:315, 07:328, 07:406, 12:04:01, 14:12, 14:49, 15:02:10, 15:02:17, 15:99, 17:01:01:01-17:01:03, 17:01:05- 17:21, 17:23-17:33, 18:01- 18:10, B*15:277, B*35:222, B*42:22
	250 bp		*03:218, 03:252	
17⁵	100 bp 135 bp	1070 bp	*03:20N, 03:101 *03:05, 03:25, 03:27, 03:167, 03:296	
18	165 bp 195 bp 220 bp	1070 bp	*03:102, 03:263 *03:83 *03:23, 03:318N	B*15:96, B*56:37
19⁵	105 bp 250 bp	800 bp	*03:24 *03:33, 03:115, 03:236	*15:90 *02:114, 04:106, 08:78
20⁸	160 bp 250 bp 455 bp	1070 bp	*03:25, 03:155 *03:47, 03:227, 03:252 *03:227	*08:95, B*35:252, B*39:114 *12:126
21	210 bp 240 bp	1070 bp	*03:26 *03:57:01, 03:88	
22	200 bp	800 bp	*03:15, 03:27, 03:38:01-03:38:02, 03:69, 03:130, 03:136, 03:163, 03:237, 03:246, 03:277N, 03:297	*02:12, 02:49, 02:55:01- 02:55:02, 02:115, 04:03:01, 04:03:03, 04:06, 04:16, 04:80, 04:107, 04:147, 04:160, 04:171, 04:190, 06:70:01-06:70:02, 06:132:01-06:132:02, 07:20, 07:96:01-07:96:02, 07:127, 07:263, 07:390, 12:140, 15:03, 15:16, 15:25
23⁵	255 bp 90 bp 260 bp	1070 bp	*03:213 *03:28, 03:49, 03:117 *03:22Q, 03:90, 03:103, 03:153, 03:169Q	*01:65, 05:86
24	165 bp 200 bp	1070 bp	*03:120, 03:184:01-03:184:02, 03:200, 03:229N *03:30, 03:65, 03:79, 03:121N	
25	305 bp	1070 bp	*03:32, 03:45, 03:136, 03:297	*04:80, 04:100, 04:110 ^w , 04:178, 06:143, 07:10, 07:43, 07:196, 15:25, 15:62, B*15:357, B*35:178, B*35:282, B*35:316
	355 bp		*03:38:02, 03:69, 03:130, 03:136, 03:163, 03:246, 03:274, 03:297	*04:80, 04:100, 04:110 ^w , 04:178, 06:143, 07:10, 07:43, 07:196, 07:367, 12:44, 15:03, 15:16, 15:25
26^{5,7}	70 bp 105 bp 255 bp	1070 bp	*03:34, 03:142, 03:261, 03:272 *03:36, 03:77, 03:187, 03:296 *03:13:01-03:13:02, 03:35, 03:125, 03:176, 03:178, 03:198, 03:267, 03:292	*04:212 *04:212, 05:86, 07:133, 07:242, 07:330:01, B*15:96

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

27⁵	80 bp 210 bp 275 bp	1070 bp	*03:11:01-03:11:02, 03:18:02, 03:37:01-03:37:02, 03:64:01, 03:301 *03:208N, 03:323N *03:15, 03:32, 03:45, 03:60, 03:136, 03:297	*02:08, 02:42, 06:03:01, 07:314:02, 12:03:23, 15:10:02- 15:10:03, 15:113, B*58:74 *02:49, 02:75, 02:115, 04:03:01- 04:03:03, 04:06, 04:16, 04:80, 04:147, 04:160, 04:171, 06:03:01, 06:132:01-06:132:02, 07:96:01-07:96:02, 07:314:02, 15:25, 15:62
28^{5,8}	90 bp 165 bp	1070 bp	*03:258 *03:16, 03:41:01-03:41:02, 03:113:01-03:113:02, 03:147, 03:151, 03:293	*01:97, 04:01:01:01-04:01:04, 04:01:06, 04:01:08, 04:01:10- 04:01:17, 04:01:19-04:01:21, 04:01:23-04:01:25, 04:01:27- 04:01:67, 04:01:69-04:01:75, 04:03:01-04:04:01, 04:05-04:20, 04:23-04:49, 04:51-04:63, 04:65-04:76, 04:78-04:94:01, 04:95N-04:98:02, 04:100- 04:119, 04:121-04:155, 04:157- 04:159, 04:161-04:174, 04:176- 04:177, 04:179, 04:180:02- 04:200, 04:202-04:211, 04:213- 04:222, 04:224-04:233N, 04:235-04:244, 06:02:08, 06:34:02, 07:02:32, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03-14:02:10, 14:02:12- 14:16, 14:18-14:31, 14:33- 14:43, 14:45-14:67, 14:69- 14:74, 15:77, 16:01:06, 18:01- 18:10, B*13:13:02, B*15:01:17, B*15:78:03
29	140 bp 170 bp 285 bp	1070 bp	*03:98 *03:51, 03:96, 03:161, 03:165, 03:194 *03:39, 03:67	*04:64:01 *06:53:01, 07:56:01, 07:60, 07:79, 07:109, B*08:39
30⁷	150 bp 175 bp	1070 bp	*03:61 *03:46, 03:96, 03:194, 03:221	*04:64:01
31⁵	100 bp 210 bp 555 bp	800 bp	*03:59, 03:123 *03:44 *03:58, 03:86, 03:94, 03:99, 03:209, 03:302	*05:85, 05:107, 12:178, 15:37, 15:102, 16:18
32^{5,8}	90 bp 185 bp	1070 bp	*03:58, 03:189N *03:48, 03:84, 03:174, 03:281	*01:03, 01:24, 01:78, 04:37, 05:85, 07:364
33⁵	110 bp 180 bp 310 bp 365 bp	1070 bp	*03:62 *03:224N *03:167 *03:43:01-03:43:02, 03:119, 03:132, 03:175, 03:271	B*07:93, B*08:39 *07:60, 07:79, 12:58, 14:10, 14:46:02, B*35:101:02
34	130 bp 195 bp	1070 bp	*03:54, 03:98 *03:192	

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

	240 bp		*03:53	*12:17
35^{5,7}	70 bp	1070 bp	*03:18:02, 03:64:01, 03:301	*02:08, 12:03:23, 15:10:02-15:10:03, B*58:74 B*44:208
	130 bp		*03:56, 03:214	
	155 bp		*03:229N	
	210 bp		*03:79, 03:82, 03:85	
	250 bp		*03:244Q	
36	160 bp	1070 bp	*03:122, 03:206, 03:212, 03:219	*04:84, 07:167, 08:128
	240 bp		*03:72, 03:50	
37	140 bp	1070 bp	*03:16, 03:21, 03:55, 03:80, 03:92, 03:113:01-03:113:02, 03:117, 03:161, 03:251, 03:293	*01:97, 04:01:01:01-04:01:04, 04:01:08, 04:01:10-04:01:21, 04:01:23-04:01:25, 04:01:27-04:01:75, 04:03:01-04:04:01, 04:05-04:07, 04:09N-04:20, 04:23-04:31, 04:33, 04:35-04:49, 04:51-04:58, 04:60-04:76, 04:78-04:84, 04:86-04:94:01, 04:95N-04:98:02, 04:100-04:146, 04:148-04:159, 04:161-04:174, 04:176, 04:179, 04:180:02-04:211, 04:213-04:222, 04:224-04:233N, 04:235-04:244, 06:02:08, 06:34:02, 07:02:32, 08:01:07, 08:02:07, 08:33:02, 12:03:20, 14:02:01:01-14:02:01:02, 14:02:03-14:02:11, 14:02:13-14:16, 14:18-14:19, 14:21N-14:24:02, 14:26-14:31, 14:33-14:37, 14:39-14:74, 16:01:06, 18:01-18:02, 18:04-18:07N, 18:09-18:10
38^{5,8}	70 bp	1070 bp	*03:184:01-03:184:02	
	105 bp		*03:52, 03:95, 03:305	*04:43, 04:143, 04:171
39⁵	110 bp	1070 bp	*03:36, 03:77, 03:187, 03:296	*04:34, 04:122, 04:212, 14:53, B*13:13:02
	160 bp		*03:63, 03:145	
	195 bp		*03:174	
40⁵	70 bp	1070 bp	*03:80	*04:201, 07:330:02, A*68:118 , B*08:115
	230 bp		*03:126	
	260 bp		*03:66	
41^{5,6}	120 bp	1070 bp	*03:68	
	195 bp		*03:100	
	295 bp		*03:205	*04:161 ^w
42⁵	120 bp	1070 bp	*03:78	
	165 bp		*03:201N	
	200 bp		*03:70, 03:127, 03:179, 03:192, 03:274, 03:277N	B*07:234, B*15:315, B*18:126, B*55:30
43⁷	230 bp	800 bp	*03:74, 03:81, 03:137, 03:175, 03:199, 03:223, 03:245, 03:317	B*15:96, B*39:103, B*56:37
	270 bp		*03:97, 03:153	
44⁵	70 bp	1070 bp	*03:91:01	
	160 bp		*03:75, 03:120, 03:229N	
	250 bp		*03:244Q	

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

45	150 bp 255 bp 295 bp	1070 bp	*03:93, 03:206, 03:212 *03:213 *03:76	*04:84, 07:167, 08:128
46	150 bp 210 bp	1070 bp	*03:155 *03:58, 03:86, 03:94, 03:99	*08:95, B*35:252, B*39:114 *01:02:01-01:02:31, 01:02:33-01:03, 01:06-01:07:01, 01:08, 01:10-01:11, 01:13-01:20, 01:23-01:33, 01:38-01:48, 01:51-01:54, 01:56N-01:76, 01:78, 01:80-01:90, 01:92-01:96, 01:98N-01:100, 01:103-01:113, 01:115-01:119, 01:121Q-01:124, 04:37, 05:85, 05:107, 14:45, 15:102
47⁵	70 bp 195 bp 240 bp	1070 bp	*03:14, 03:21, 03:55, 03:92, 03:117, 03:161 *03:109 *03:57:01, 03:125, 03:176	*01:65, 05:86, 07:133, 07:330:01
48	240 bp	1070 bp	*03:57:01-03:57:02	
49	180 bp	1070 bp	*03:146, 03:294	*02:83, 06:02:03, 06:46N, 08:01:09, 08:24, 12:172, 16:90, 17:01:01:01-17:01:01:05, 17:01:12-17:03, 17:05, 17:30
50	215 bp	1070 bp	*03:250, 03:267, 03:318N	*04:212, 05:86
51⁵	120 bp 235 bp	1070 bp	*03:105 *03:303	
52	225 bp	1070 bp	*03:311, 03:323N	
53	240 bp 315 bp	1070 bp	*03:106 *03:312	
54⁵	95 bp	1070 bp	*03:316N	
55	260 bp 470 bp	1070 bp	*03:207 *03:211:02	*05:03
56	155 bp 265 bp	1070 bp	*03:145 *03:73	
57	470 bp	1070 bp	*03:171, 03:211:01	*04:144, 05:93, 06:73, 08:20, 08:40, 12:109
58⁹	-	-	Negative Control	

¹Alleles are assigned by the presence of specific PCR product(s). However, the sizes of the specific PCR products may be helpful in the interpretation of HLA-C*03 SSP typings. When the primers in a primer mix can give rise to HLA-specific PCR products of more than one length this is indicated if the size difference is more than 20 base pairs. Size differences of 20 base pairs or less are not given. For high resolution SSP kits, the alleles listed are specified according to amplicon length. Nonspecific amplifications, i.e. a ladder or a smear of bands, may sometimes be seen. GC-rich primers have a higher tendency of giving rise to nonspecific amplifications than other primers. PCR fragments longer than the control bands may sometimes be observed. Such bands should be disregarded and do not influence the interpretation of the SSP typings. PCR fragments migrating faster than the control bands, but slower than a 400 bp fragment may be seen in some gel read-outs. Such bands can be disregarded and do not influence the interpretation of the SSP typings. Some primers may give rise to primer oligomer artifacts. Sometimes this phenomenon is an inherent feature of the primer pair(s) of a primer mix. More often it is due to other factors such as too low amount of DNA in the PCR reactions, taking too long time in setting up the PCR reactions, working at elevated room temperature or using thermal cyclers that are not pre-heated.

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

²The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 1070 or 800 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the shorter, 800 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

³For several HLA Class I alleles 1st and/or 4th exon(s) and beyond, as well as intron nucleotide sequences, are not available. In these instances it is not known whether some of the primers of the SSP sets are completely matched with the target sequences or not. Assumption is made that unknown sequences in these regions are conserved within allelic groups.

⁴Due to the sharing of sequence motifs between HLA-C alleles, non-HLA-C*03 alleles will be amplified by primer mixes 1 to 3, 5, 7 to 16, 19, 20, 22, 23, 25 to 41, 45 to 47, 49, 50, 55 and 57. In addition, a few HLA-A and HLA-B alleles will be amplified by primer mixes 1, 2, 5 to 8, 12 to 14, 16, 18, 20, 25 to 29, 33, 35, 39, 40, 42, 43 and 46.

⁵HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

⁶Primer mix 7 and 41 may give rise to a lower yield of HLA-specific PCR product than the other HLA-C*03 primer mixes.

⁷Primer mixes 15, 26, 30, 35 and 43 have a tendency to giving rise to primer oligomer formation.

⁸Primer mixes 20, 28, 32 and 38 may have tendencies of unspecific amplifications.

⁹Primer mix 58 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 430 base pairs.

‘w’, might be weakly amplified.

‘?’, nucleotide sequence information not available for the primer matching sequence.

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information
PRIMER SPECIFICATION

Well No.	1	2	3	4	5	6	7	8	9	10	11	12
Length of spec. PCR product	280	210	280	275	275	90	110	255	240	245	145	110
						215	185				230	140
											415	260
												305
												590
Length of int. pos. control ¹	800	1070	800	1070	1070	800	1070	1070	1070	800	1070	1070
5'-primer(s) ²	105 5'-gCT 3'	417 5'-CAA 3'	105 5'-gCT 3'	355 5'-TCA 3'	355 5'-CCC 3'	413 5'-TgT 3'	201 5'-CCg 3'	374 5'-CTA 3'	105 5'-gCT 3'	105 5'-gCT 3'	28 5'-TCA 3'	126 5'-ggA 3'
		419 5'-gTC 3'				539 5'-gTg 3'	201 5'-CCg 3'	379 5'-ACC 3'			485 5'-CAA 3'	355 5'-TCA 3'
								379 5'-ACT 3'				
3'-primer(s) ³	343 5'-C 3'	589 5'-CTT 3'	343 5'-T 3'	589 5'-CTT 3'	589 5'-CTT 3'	589 5'-CTT 3'	270 5'-TAg 3'	589 5'-CTT 3'	302 5'-ggT 3'	307 5'-CCA 3'	85 5'-CAg 3'	343 5'-T 3'
				589 5'-CTT 3'			343 5'-T 3'			312 5'-AgT 3'	270 5'-TAg 3'	426 5'-TCC 3'
											589 5'-CTT 3'	452 5'-Cgg 3'
												618 5'-CT 3'
Well No.	1	2	3	4	5	6	7	8	9	10	11	12

Well No.	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec. PCR product	80	70	135	120	100	165	105	160	210	200	90	165
	140	210		150	135	195	250	250	240	255	260	200
				250		220		455				
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	800	1070	1070	800	1070	1070
5'-primer(s) ²	361 5'-AgT 3'	105 5'-gCC 3'	105 5'-gCT 3'	201 5'-CCg 3'	19 5'-CCT 3'	406 5'-gCA 3'	105 5'-gCT 3'	19 5'-CCg 3'	391 5'-ACA 3'	134 5'-CCA 3'	367 5'-TgC 3'	355 5'-TCC 3'
	417 5'-CAA 3'	420 5'-TTA 3'		637 5'-ACA 3'	363 5'-AgC 3'	420 5'-TAA 3'	3 rd I 5'-Cgg 3'	86 5'-CAA 3'	395 5'-gCA 3'	134 5'-CCA 3'	368 5'-gTC 3'	355 5'-TCA 3'
	419 5'-gTC 3'			637 5'-ACT 3'	3 rd I 5'-Cgg 3'	436 5'-AgA 3'		194 5'-CgT 3'	420 5'-TTC 3'	3 rd I 5'-Cgg 3'	374 5'-CTA 3'	
				730 5'-ggA 3'		463 5'-TgA 3'		467 5'-CTT 3'			539 5'-gCg 3'	
				766 5'-TgA 3'				637 5'-ACA 3'				
3'-primer(s) ³	459 5'-AgA 3'	134 5'-AgT 3'	201 5'-CTC 3'	312 5'-AgT 3'	70 5'-ggC 3'	589 5'-CTT 3'	167 5'-ACC 3'	97 5'-gTA 3'	589 5'-CTT 3'	289 5'-AgC 3'	589 5'-CTT 3'	470 5'-TCT 3'
		589 5'-CTT 3'		846 5'-CAC 3'	459 5'-AgA 3'		307 5'-CCA 3'	302 5'-ggC 3'		289 5'-AgC 3'		473 5'-CgA 3'
					662 5'-CAC 3'		323 5'-AgC 3'	589 5'-CTT 3'		295 5'-TCA 3'		487 5'-CgT 3'
							787 5'-TCT 3'	846 5'-CAC 3'		749 5'-CCg 3'		513 5'-TCT 3'
										806 5'-CTA 3'		514 5'-CTT 3'
												515 5'-CCC 3'
Well No.	13	14	15	16	17	18	19	20	21	22	23	24

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

Well No.	25	26	27	28	29	30	31	32	33	34	35	36
Length of spec.	305	70	80	90	140	150	100	90	110	130	70	160
PCR product	355	105	210	165	170	175	210	185	180	195	130	240
		255	275		285		555		310	240	155	
									365		210	
											250	
Length of int.	1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	1070
pos. control ¹												
5'-primer(s) ²	289	363	105	459	97	105	98	105	343	98	105	133
	5'-Agg 3'	5'-Agg 3'	5'-gCT 3'	5'-gAT 3'	5'-TCg 3'	5'-gCT 3'	5'-CTA 3'	5'-gCT 3'	5'-CCA 3'	5'-CTA 3'	5'-gCT 3'	5'-CCT 3'
	341	385			459	459	421	368	3 rd I	459	355	394
	5'-ggA 3'	5'-ggT 3'			5'-gAT 3'	5'-gAT 3'	5'-ACC 3'	5'-gTg 3'	5'-Cgg 3'	5'-gAT 3'	5'-TCA 3'	5'-ggg 3'
		527					530					464
		5'-TgT 3'					5'-ggT 3'					5'-gCC 3'
		560										3 rd I
		5'-CgA 3'										5'-Cgg 3'
3'-primer(s) ³	353	589	134	506	343	231	361	153	363	295	134	343
	5'-TgA 3'	5'-CTT 3'	5'-AgC 3'	5'-Tgg 3'	5'-T 3'	5'-..C 3'	5'-CCA 3'	5'-ACC 3'	5'-ATg 3'	5'-TCC 3'	5'-AgC 3'	5'-T 3'
			142	578	559	235	589	242	419	544	276	589
			5'-TgA 3'	5'-TgA 3'	5'-Cgg 3'	5'-CTT 3'	5'-CTT 3'	5'-CCA 3'	5'-Cgg 3'	5'-ggg 3'	5'-Cgg 3'	5'-CTT 3'
			273	589	583	566		242	662	559	282	704
			5'-TTT 3'	5'-CTC 3'	5'-gTg 3'	5'-CCT 3'		5'-CCT 3'	5'-CAg 3'	5'-Cgg 3'	5'-gAC 3'	5'-CCA 3'
			280	589	594	595		257	728	613	434	719
			5'-CTA 3'	5'-CTC 3'	5'-CCC 3'	5'-CCT 3'		5'-CCT 3'	5'-CCT 3'	5'-gCT 3'	5'-CCA 3'	5'-AgA 3'
			341		595			419			452	
			5'-CgT 3'		5'-CCT 3'			5'-CgA 3'			5'-Cgg 3'	
											470	
											5'-TCT 3'	
											515	
											5'-CCC 3'	
											563	
											5'-CgA 3'	
Well No.	25	26	27	28	29	30	31	32	33	34	35	36

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

Well No.	37	38	39	40	41	42	43	44	45	46	47	48
Length of spec. PCR product	140	70	110	70	120	120	230	70	150	150	70	240
		105	160	230	195	165	270	160	255	210	195	
			195	260	295	200		250	295		240	
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	800	1070	1070	1070	1070	1070
5'-primer(s) ²	459	459	105	28	265	134	104	355	91	194	385	391
	5'-gAT 3'	5'-gAT 3'	5'-gCT 3'	5'-TCA 3'	5'-CgA 3'	5'-CCA 3'	5'-CTT 3'	5'-TCA 3'	5'-ggC 3'	5'-CgT 3'	5'-ggT 3'	5'-ACA 3'
			459	560	3 rd I	459	116		490	368	391	391
			5'-gAT 3'	5'-CAC 3'	5'-Cgg 3'	5'-gAT 3'	5'-gCT 3'		5'-CgA 3'	5'-gTg 3'	5'-ACA 3'	5'-ACC 3'
							355		3 rd I		434	
							5'-TCT 3'		5'-Cgg 3'		5'-CAg 3'	
							367				560	
							5'-TgC 3'				5'-CAC 3'	
							409					
							5'-ggC 3'					
3'-primer(s) ³	559	487	221	85	343	295	302	382	343	302	589	589
	5'-CgT 3'	5'-CgT 3'	5'-ACA 3'	5'-CAG 3'	5'-T 3'	5'-TCA 3'	5'-ggC 3'	5'-CCT 3'	5'-T 3'	5'-ggC 3'	5'-CTT 3'	5'-CTT 3'
		518	233	118	746	299	589	470	589	538		
		5'-CCA 3'	5'-CCA 3'	5'-gCA 3'	5'-gAA 3'	5'-TCT 3'	5'-CTT 3'	5'-TCT 3'	5'-CTT 3'	5'-CCg 3'		
		523	257	589	845	538		473	704			
		5'-ACA 3'	5'-CCT 3'	5'-CTT 3'	5'-ACT 3'	5'-CAT 3'		5'-CgA 3'	5'-CCA 3'			
			527			585		476	806			
			5'-CCA 3'			5'-AgC 3'		5'-CgA 3'	5'-CTA 3'			
						613		563				
						5'-gCT 3'		5'-CgA 3'				
Well No.	37	38	39	40	41	42	43	44	45	46	47	48

Well No.	49	50	51	52	53	54	55	56	57
Length of spec. PCR product	180	215	120	225	240	95	260	155	470
			235		315		470	265	
Length of int. pos. control ¹	1070	1070	1070	1070	1070	1070	1070	1070	1070
5'-primer(s) ²	3 rd I	412	653	105	3 rd I	288	652	105	652
	5'-Cgg 3'	5'-ATA 3'	5'-CgC 3'	5'-gCT 3'	5'-Cgg 3'	5'-..g 3'	5'-CCA 3'	5'-gCT 3'	5'-CCA 3'
		420	766				863		
		5'-TAA 3'	5'-TgA 3'				5'-Cgg 3'		
3'-primer(s) ³	727	589	846	280	791	343	956	221	956
	5'-CCg 3'	5'-CTT 3'	5'-CAC 3'	5'-CTA 3'	5'-AgA 3'	5'-T 3'	5'-CAg 3'	5'-ACA 3'	5'-CAg 3'
				299	866			328	
				5'-TCC 3'	5'-gCT 3'			5'-gTC 3'	
Well No.	49	50	51	52	53	54	55	56	57

¹The internal positive control primer pairs amplify segments of the human growth hormone gene. The internal positive control bands are 1070 or 800 base pairs respectively, well distribution as outlined in the table. Well number 1 contains the shorter, 800 bp, internal positive control band. The well distribution of the internal controls can help in orientation of the kit on gel photo, as well as allow for kit identification. In the presence of a specific amplification the intensity of the control band often decreases.

²The nucleotide position matching the specificity-determining 3'-end of the primer is given. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

³The nucleotide position matching the specificity-determining 3'-end of the primer is given in the anti-sense direction. Nucleotide numbering as on the www.ebi.ac.uk/imgt/hla web site. The sequence of the 3 terminal nucleotides of the primer is given.

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C*03 SSP subtyping kit ²																				
				Well																
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
				Prod. No.:	201675201	201675202	201675203	201675204	201675205	201675206	201675207	201675208	201675209	201675210	201675211	201675212	201675213	201675214	201675215	201675216
IHC cell line ¹		C*																		
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*07:01	*15:05	+	-	-	-	-	-	+	-	+	+	-	-	-	-	-	-
3	9011	E4181324	*12:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*03:04	*04:01	+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
5	9009	KAS011	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
6	9353	SM	*03:04	*07:02	+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
7	9020	QBL	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU	*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051	PITOUT	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
13	9004	JESTHOM	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071	OLGA	*01:02	*03:04	+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
15	9075	DKB	*03:04		+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
16	9037	SWEIG007	*02:02		+	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
17	9282	CTM3953540	*03:03	*07:01	-	-	+	+	-	-	+	-	-	-	-	-	-	-	+	-
18	9257	32367	*01:02	*07:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038	BM16	*07:01		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*03:04		+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
21	9064	AMALA	*03:03		-	-	+	+	-	-	+	-	-	-	-	-	-	-	+	-
22	9056	KOSE	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*01:02	*15:02	+	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
24	9035	JBUSH	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*07:18		-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*07:04	*15:29	+	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
28	9320	BEL5GB	*05:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*17:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
31	9019	DUCAF	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*17:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
33	9098	MT14B	*03:04		+	-	-	+	-	-	-	-	-	-	-	-	-	-	+	-
34	9104	DHIF	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*03:03	*04:01	-	-	+	+	-	-	+	-	-	-	-	-	-	-	+	-
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*03:03		-	-	+	+	-	-	+	-	-	-	-	-	-	-	+	-
39	9315	CML	*02:02	*07:01	+	-	-	-	-	-	+	-	+	+	-	-	-	-	-	-
40	9134	WHONP199	*01:02	*06:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
41	9055	H0301	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076	T7526	*01:02	*08:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057	TEM	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*06:02	*17:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*07:04	*15:02	+	-	-	-	-	-	-	-	+	+	-	-	-	-	-	-
48	9303	TER-ND	*04:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

Visit www.olerup-ssp.com for
“Instructions for Use” (IFU)

Lot No.: **6E9**

Lot-specific information

CELL LINE VALIDATION SHEET																				
HLA-C*03 SSP subtyping kit ²																				
				Well																
				17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
				Prod. No.:	201675217	201675218	201675219	201675220	201675221	201675222	201675223	201675224	201675225	201675226	201675227	201675228	201675229	201675230	201675231	201675232
	IHWC cell line ¹		C*																	
1	9001 SA		*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*07:01	*15:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011 E4181324		*12:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275 GU373		*03:04	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	9009 KAS011		*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353 SM		*03:04	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020 QBL		*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025 DEU		*04:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	9026 YAR		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107 LKT3		*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	9051 PITOUT		*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052 DBB		*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004 JESTHOM		*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	9071 OLGA		*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	9075 DKB		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037 SWEIG007		*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282 CTM3953540		*03:03	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257 32367		*01:02	*07:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	9038 BM16		*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059 SLE005		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064 AMALA		*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056 KOSE		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124 IHL		*01:02	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	9035 JBUSH		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049 IBW9		*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285 WT49		*07:18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191 CH1007		*07:04	*15:29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB		*05:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050 MOU		*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021 RSH		*17:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019 DUCAF		*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297 HAG		*17:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098 MT14B		*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104 DHIF		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302 SSTO		*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024 KT17		*03:03	*04:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	9065 HHKB		*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099 LZL		*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315 CML		*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134 WHONP199		*01:02	*06:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	9055 H0301		*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066 TAB089		*01:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43	9076 T7526		*01:02	*08:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	9057 TEM		*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239 SHJO		*06:02	*17:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013 SCHU		*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045 TUBO		*07:04	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303 TER-ND		*04:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: **6E9**

Lot-specific information

CELL LINE VALIDATION SHEET																			
HLA-C*03 SSP subtyping kit ²																			
				Well															
				33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
				Prod. No.:															
				201675233	201675234	201675235	201675236	201675237	201675238	201675239	201675240	201675241	201675242	201675243	201675244	201675245	201675246	201675247	201675248
IHC cell line ¹		C*																	
1	9001	SA	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	9280	LK707	*07:01	*15:05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	9011	E4181324	*12:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	9275	GU373	*03:04	*04:01	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
5	9009	KAS011	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	9353	SM	*03:04	*07:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	9020	QBL	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	9025	DEU	*04:01		-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
9	9026	YAR	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	9107	LKT3	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
11	9051	PITOUT	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	9052	DBB	*06:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9004	JESTHOM	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
14	9071	OLGA	*01:02	*03:04	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
15	9075	DKB	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	9037	SWEIG007	*02:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	9282	CTM3953540	*03:03	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	9257	32367	*01:02	*07:05	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
19	9038	BM16	*07:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	9059	SLE005	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	9064	AMALA	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	9056	KOSE	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	9124	IHL	*01:02	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
24	9035	JBUSH	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	9049	IBW9	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	9285	WT49	*07:18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	9191	CH1007	*07:04	*15:29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	9320	BEL5GB	*05:01	*16:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	9050	MOU	*16:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	9021	RSH	*17:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	9019	DUCAF	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	9297	HAG	*17:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	9098	MT14B	*03:04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	9104	DHIF	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	9302	SSTO	*05:01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	9024	KT17	*03:03	*04:01	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-
37	9065	HHKB	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	9099	LZL	*03:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	9315	CML	*02:02	*07:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	9134	WHONP199	*01:02	*06:02	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
41	9055	H0301	*08:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	9066	TAB089	*01:02		-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
43	9076	T7526	*01:02	*08:01	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-
44	9057	TEM	*12:03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	9239	SHJO	*06:02	*17:01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	9013	SCHU	*07:02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	9045	TUBO	*07:04	*15:02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	9303	TER-ND	*04:01	*16:01	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

Lot-specific information

CELL LINE VALIDATION SHEET													
HLA-C*03 SSP subtyping kit ²													
				Well									
				49	50	51	52	53	54	55	56	57	
				Prod. No.:	201675249	201675250	201675251	201675252	201675253	201675254	201675255	201675256	201675257
	IHWC cell line ¹		C*										
1	9001 SA		*07:02	-	-	-	-	-	-	-	-	-	-
2	9280 LK707		*07:01	*15:05	-	-	-	-	-	-	-	-	-
3	9011 E4181324		*12:02		-	-	-	-	-	-	-	-	-
4	9275 GU373		*03:04	*04:01	-	-	-	-	-	-	-	-	-
5	9009 KAS011		*06:02		-	-	-	-	-	-	-	-	-
6	9353 SM		*03:04	*07:02	-	-	-	-	-	-	-	-	-
7	9020 QBL		*05:01		-	-	-	-	-	-	-	-	-
8	9025 DEU		*04:01		-	-	-	-	-	-	-	-	-
9	9026 YAR		*12:03		-	-	-	-	-	-	-	-	-
10	9107 LKT3		*01:02		-	-	-	-	-	-	-	-	-
11	9051 PTOU		*16:01		-	-	-	-	-	-	-	-	-
12	9052 DBB		*06:02		-	-	-	-	-	-	-	-	-
13	9004 JESTHOM		*01:02		-	-	-	-	-	-	-	-	-
14	9071 OLGA		*01:02	*03:04	-	-	-	-	-	-	-	-	-
15	9075 DKB		*03:04		-	-	-	-	-	-	-	-	-
16	9037 SWEIG007		*02:02		-	-	-	-	-	-	-	-	-
17	9282 CTM3953540		*03:03	*07:01	-	-	-	-	-	-	-	-	-
18	9257 32367		*01:02	*07:05	-	-	-	-	-	-	-	-	-
19	9038 BM16		*07:01		-	-	-	-	-	-	-	-	-
20	9059 SLE005		*03:04		-	-	-	-	-	-	-	-	-
21	9064 AMALA		*03:03		-	-	-	-	-	-	-	-	-
22	9056 KOSE		*12:03		-	-	-	-	-	-	-	-	-
23	9124 IHL		*01:02	*15:02	-	-	-	-	-	-	-	-	-
24	9035 JBUSH		*12:03		-	-	-	-	-	-	-	-	-
25	9049 IBW9		*08:02		-	-	-	-	-	-	-	-	-
26	9285 WT49		*07:18		-	-	-	-	-	-	-	-	-
27	9191 CH1007		*07:04	*15:29	-	-	-	-	-	-	-	-	-
28	9320 BEL5GB		*05:01	*16:01	-	-	-	-	-	-	-	-	-
29	9050 MOU		*16:01		-	-	-	-	-	-	-	-	-
30	9021 RSH		*17:01		+	-	-	-	-	-	-	-	-
31	9019 DUCAF		*05:01		-	-	-	-	-	-	-	-	-
32	9297 HAG		*17:03		+	-	-	-	-	-	-	-	-
33	9098 MT14B		*03:04		-	-	-	-	-	-	-	-	-
34	9104 DHIF		*12:03		-	-	-	-	-	-	-	-	-
35	9302 SSTO		*05:01		-	-	-	-	-	-	-	-	-
36	9024 KT17		*03:03	*04:01	-	-	-	-	-	-	-	-	-
37	9065 HHKB		*07:02		-	-	-	-	-	-	-	-	-
38	9099 LZL		*03:03		-	-	-	-	-	-	-	-	-
39	9315 CML		*02:02	*07:01	-	-	-	-	-	-	-	-	-
40	9134 WHONP199		*01:02	*06:02	-	-	-	-	-	-	-	-	-
41	9055 H0301		*08:02		-	-	-	-	-	-	-	-	-
42	9066 TAB089		*01:02		-	-	-	-	-	-	-	-	-
43	9076 T7526		*01:02	*08:01	-	-	-	-	-	-	-	-	-
44	9057 TEM		*12:03		-	-	-	-	-	-	-	-	-
45	9239 SHJO		*06:02	*17:01	+	-	-	-	-	-	-	-	-
46	9013 SCHU		*07:02		-	-	-	-	-	-	-	-	-
47	9045 TUBO		*07:04	*15:02	-	-	-	-	-	-	-	-	-
48	9303 TER-ND		*04:01	*16:01	-	-	-	-	-	-	-	-	-

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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“Instructions for Use” (IFU)

Lot No.: 6E9

Lot-specific information

¹The provided cell line HLA specificities are retrieved from the <http://www.ihwg.org/hla> web site. The specificity of an individual cell line may thus be subject to change.

²The specificity of each primer solution in the kit has been tested against 48 well characterized cell line DNAs and where applicable, additional cell line DNAs.

No DNAs carrying the alleles to be amplified by primer solutions 8, 11, 17 to 21, 23 to 26, 29, 31 to 36, 38 to 45, 47, 48 and 50 to 57 were available. The specificities of the primers in primer solutions 8, 11, 17 to 19, 21, 23, 25, 26, 29, 31 to 33, 35, 36, 39, 41 to 43, 45, 47, 50 and 55 were tested by separately adding one, two or three additional 5'-primers, respectively one, two or four additional 3'-primers. In primer solutions 20, 48, 51, 54 and 57 it was only possible to test the 3'-primers, the 5'-primers were not possible to test. In primer solutions 24, 34, 38, 40, 44, 52, 53 and 56 it was only possible to test the 5'-primers, the 3'-primers were not possible to test.

In primer solutions 2, 7, 8, 13, 16 to 18, 21, 23, 31, 36, 41, 43, 45 to 47, 50 and 55 it was not possible to test one or more of the 5'-primers and in primer solutions 10 to 12, 17, 19, 22, 27 to 30, 32, 33, 35, 36, 39, 41, 42 and 45 one or more 3'-primers were not possible to test. Additional primers in primer solutions 6, 12, 14, 16, 22, 27, 30 and 46 were tested by separately adding additional 5'- and/or 3'-primers.

101.611-12 – including *Taq* polymerase, IFU-01
101.611-12u – without *Taq* polymerase, IFU-02

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Lot No.: **6E9**

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